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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,509	12/04/2003	James E. Chitwood		1990

24245 7590 07/14/2005
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EXAMINER

BEACH, THOMAS A

ART UNIT PAPER NUMBER

3671

DATE MAILED: 07/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/729,509	Applicant(s) CHITWOOD ET AL.	
	Examiner Thomas A. Beach	Art Unit 3671	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on amendment filed 04/15/05.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5 and 6 is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>05/03/05 04/15/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lagner et al 6,264,401 in view of Bertet et al 5,695,008. Lagner shows an apparatus having an electrically heated composite umbilical means 10 installed within a subsea flowline (fig. 1) containing produced hydrocarbons as an immersion heater means to prevent waxes and hydrates from forming within the flowline and blocking the flowline, whereby the electrically heated composite umbilical means possesses at least one electrical conductor disposed (col. 1, lines 51-67) within the composite umbilical means that conducts electrical current that is used to heat the electrically heated composite umbilical means within the subsea flowline but does not show the electrical conductor surrounded by a composite material with fibers of high strength embedded in a matrix material with glass fibers and the matrix material is selected from thermoset resins and thermoelastic resins, whereby said thermoset resins include epoxy and vinyl ester, and whereby said thermoelastic resins include PEEK, PEKK, and nylon. Bertet shows a similar heated umbilical means with the electrical conductor surrounded by a composite material with fibers of high strength embedded in a matrix material with glass fibers and the matrix material is selected from thermoset resins and thermoelastic resins, whereby said thermoset resins include epoxy and vinyl ester, and whereby said thermoelastic resins include PEEK, PEKK, and nylon. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lagner, as taught

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by Bertet, to include glass fibers and resins in the electrical conductor to improve the heat transfer characteristics of the composite material to properly maintain flow for produced hydrocarbons.

As concern claim 2, Lagner further shows a method of installing umbilical means within a an electrically heated composite 32 previously existing subsea flowline 10 (figure 1, considered pre-existing since the claim language does not preclude manufacturing of the flowline where a preexisting or built flowine has the conductive outer pipe 32 attached thereto, inherent to manufacturing) containing produced hydrocarbons to make an immersion heater means to prevent waxes and hydrates from forming within the flowline and blocking the flowline (col. 1, lines 51-67).

As concern claim 3, Lagner further shows a method of using an umbilical conveyance means 10 to convey into an existing subsea flowline possessing produced hydrocarbons an electrically heated composite umbilical means used as an immersion heating means (col. 1, lines 51-67) to prevent waxes and hydrates from forming within the flowline and blocking the flowline.

As concern claim 4, Lagner further shows a method of using an umbilical conveyance means 10 to convey into an existing subsea flowline (figure 1) containing produced hydrocarbons an electrically heated umbilical means used as an immersion heating (col. 1, lines 51-67) means to prevent waxes and hydrates from forming within the flowline and blocking the flowline.

Response to Arguments

2. Applicant's arguments with respect to claims 1-4 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas A. Beach whose telephone number is 571.272.6988. The examiner can normally be reached on Monday-Friday, 8:00am-5:00pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Will can be reached on 571.272.6998. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thomas A. Beach

July 11, 2005


THOMAS WILL
Supervisory Patent Examiner
Group 3600